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ABSTRACT

Comprised of 60 pre-K-6 classrooms, the program was designed to provide bilingual education for pupils who have limited English speaking ability. Program objectives were to: prevent their educational retardation by instructing them in Spanish while developing their command of English; enhance their understanding and cognitive development in both languages; give them the advantage of becoming literate in both languages; and instill a knowledge of and pride in their bicultural heritage. During 1975-76, there were 1,726 pupils from 10 elementary schools and 2 junior high schools enrolled in the program. This evaluation report discusses the test results from the: Peabody Picture Vocabulary Test; Bilingual Syntax Measure; Boehm Test of Basic Concepts; Prueba de Lectura (Spanish Reading Test); Social Studies Units and Packages; Projected Self-Concept Inventory; Psychomotor Skills Learned and Demonstrated--Mexican music, songs, and dances; and Comprehensive Test of Basic Skills. Both English and Spanish versions of these tests were administered on a pre- and posttest basis. These tests indicated that continuing bilingual education resulted in higher performance. (NQ)

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FINAL EVALUATION REPORT
FOR
"THE FORGOTTEN SOUTHSIDE,"
HARLANDALE INDEPENDENT SCHOOL DISTRICT'S
BILINGUAL EDUCATION PROGRAM

1975-1976

Submitted To:

Mrs. Lydia M. Calonge
Project Coordinator

and

The U.S. Office of Education as a report of
this year's progress, under the provision of
Title VII of P.L. 89-10, as amended.

Grant # OE 174 6002100A1

by

Dr. Helene W. Harrison
Evaluator

U.S. DEPARTMENT OF HEALTH,
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INDEX OF TABLES

- I. Teachers, Schools, and Summary of Pupil Data
- II. Peabody Picture Vocabulary Tests--Mental Age Means in Months
- III. Bilingual Syntax Measure--Raw Score Means
- IV. Boehm Test of Basic Concepts--Interquartiles and Medians--Kindergarten
- V. Boehm Test of Basic Concepts--Interquartiles and Medians--First Grade
- VI. Prueba De Lectura--Spanish Reading Test-Mean Raw Scores
- VII. Social Studies Units and Packages--Results
- VIII. Projected Self-Concept Inventory--Percentage of Pupils Making Gain
- IX. Projected Self-Concept Inventory--Mean Increases in Raw Scores
- X. Psychomotor Skills Learned and Demonstrated: Mexican Music, Songs and Dances
- XI. Comprehensive Test of Basic Skills--Comparison of Pre-Test and Post-Test Scores
- XII. Comprehensive Test of Basic Skills--1976 Results
- XIII. Achievement Test Progress-- Based on Percentiles

FINAL EVALUATION REPORT

This program comprised classrooms from grade levels prekindergarten--sixth grade and was designed to provide bilingual education for pupils who had limited English-speaking ability. The objectives of the program were these: (1) to prevent pupils' educational retardation by instructing them in Spanish while their command of English is being developed; (2) to enhance their understanding and cognitive development in both languages; (3) to give them the advantage of becoming literate in both languages; (4) to instill in them knowledge of and pride in their bicultural heritage.

The Project was managed by the coordinator. Other administrative personnel were the curriculum specialist, the instructional specialist, and the part-time evaluator. The project embodied several components: (1) development of and revision of curriculum materials for bilingual classes, (2) staff development of bilingual teachers and aides, (3) parental and community involvement, and (4) bilingual instruction in grades pre-K--6.

The curriculum specialist was responsible for the first component. ~~Materials~~ being constantly revised and improved included the bilingual curriculum guide, cuadernos, and social studies and science units. Materials developed included social studies and science units for all grade levels and learning activity packets for sixth grade pupils in the area of Spanish language and reading, Spanish proverbs and poetry, Mexican-American culture, and Mexican-Americans of note. In addition, the curriculum specialist studied new commercial materials to determine their value for this project. She visited all teacher in grades 3-6 bimonthly.

The instructional supervisor visited with teachers in grades K-2 bimonthly and gave them help with scheduling, use of instructional materials, bilingual instructional techniques, and other areas in which teachers needed

assistance. She was instrumental in improving pupil instruction at these grade levels.

Graduate training leading toward a master's degree for some teachers and post graduate courses in bilingual-bicultural education for other teachers fell under the second component. This component also embraced coursework leading toward a bachelor's degree with bilingual-bicultural certification for teacher aides. Involved in this coursework at Our Lady of the Lake University in San Antonio were six teachers working toward a master's degree, fifty-three teachers taking bilingual education courses and twenty aides working toward a bachelor's degree. Eighteen teachers also received college credit for participating in a workshop for individualization of instruction and setting up learning centers, which was offered by Region XX Education Service Center. Since such a large proportion of bilingual teachers were engaged in staff development, there were too few teachers left in any one grade level who did not participate to warrant comparison of pupil performance in those classrooms with that of other classrooms.

The main objective of the third component was promotion of closer cooperation between home and school. The community liaison worked in several ways to achieve this objective: (1) bilingual education committees were established within the PTA's to report; (2) parent circle groups (composed of parents whose children were in bilingual education classes) met once a month for educationally-gearred programs; (3) student referrals from teachers were followed up by home visits; (4) ethnic dancing classes for elementary teachers and for middle school children were carried on; (5) a Bilingual-Bicultural Exhibit Day was carried on at Mission San Jose, May 15th. This exhibit included visual arts, crafts, literary arts, and performing arts. Handwork, paintings and drawings, and handcrafted creations by bilingual pupils were displayed. Music, songs, dances, skits and a quinceanera were part of the entertainment put on by bilingual pupils throughout the day.

The other portion of the parental involvement component was a Bilingual-Bicultural Parent Education Workshop for thirty participants who received twenty hours of training in the makeup of the bilingual program at the Continuing Education Office of Our Lady of the Lake University.

The fourth component comprises the remainder of this report.

BILINGUAL EDUCATION FOR PREKINDERGARTEN-SIXTH GRADE

There were sixty classrooms of grade levels pre-K--5 located in ten of the fifteen elementary schools of the district and eleven sections of sixth grade located in two of the district's four junior high schools. (See Table I). In addition, there were fifteen more classrooms of K-2 located in the other elementary schools, but these were financed and monitored by the state as part of its own plan for bilingual education and were not part of Title VII and thus were not covered in this evaluation report. Twelve additional classrooms of first and second grade ESAA bilingual were evaluated by that project.

Pre-testing in bilingual classrooms proceeded on schedule.

In September and again in March the Peabody Picture Vocabulary Test was administered to all project pupils in prekindergarten and kindergarten. Both a Spanish and an English version of the test (Form B of the Spanish and Form A of the English version) were administered to each pupil individually by teacher aides in these classrooms after a through briefing on procedure by the evaluator. Following administration, tests were scored by aides, scores were converted by the evaluator's assistant, and feedback in terms of mental age was given teachers. Teachers were alerted to the fact that extent of concept/vocabulary development in each language rather than mental age was what had been measured.

As a matter of standard procedure, as soon as possible the evaluator sent feedback on all test scores to project teachers in order to aid them in diagnosing pupil weaknesses and beginning corrective action. Then the scores for all evaluation instruments were put on cards and electronically processed.

TABLE I

TEACHERS, SCHOOLS, AND SUMMARY OF PUPIL DATA

<u>TEACHER</u>	<u>SCHOOL</u>	<u>GRADE</u>	<u>NUMBER OF PUPILS</u>
Hill	Adams	K	25
García	Adams	1	31
Gonzales	Adams	1	31
Garza	Adams	2	32
Fresnillo	Collier	K	23
Treviño	Collier	K	24
Pacheco	Collier	1	31
Cantú	Collier	1	30
Mendoza	Collier	2	30
Garza	Collier	3	30
Elisondo	Collier	4	30
Smith	Collier	5	31
Cerna	Col. Heights	Pre-K	20
Múñiz	Col. Heights	K	34
Mitchell	Col. Heights	1	30
García	Col. Heights	1	30
David	Col. Heights	2	23
Carranza	Col. Heights	2	26
Duarte	Col. Heights	3	31
Solano	Col. Heights	3	32
Bancan	Col. Heights	4	27
Rodríguez	Col. Heights	5	29
Luna	Col. Heights	5	28
Gordon	Col. Heights	K	34
Nicholson	Flanders	K	33
Flores	Flanders	1	27
Bovello	Flanders	1	25
Hernández	Flanders	2	22
Rayna	Flanders	2	23
Fields	Flanders	3	28
Muncy	Flanders	4	23
Vallejo	Flanders	5	30
López	Gilbert	K	29
Espinosa	Gilbert	1	28
Maritt	Gilbert	2	25
Vidauri	Morrill	K	24
Castro	Morrill	1	25
Villarreal	Morrill	2	25
Dush	Rayburn	K	29
Harrington	Rayburn	1	28
Días	Rayburn	2	23
Pérez	Rayburn	3	26

<u>TEACHER</u>	<u>SCHOOL</u>	<u>GRADE</u>	<u>NUMBER OF PUPILS</u>
Baker	Stonewall	K	31
Saenz	Stonewall	K	29
Garza	Stonewall	1	22
Lozano	Stonewall	1	24
Flores	Stonewall	2	24
Rodriguez	Stonewall	2	23
Webb	Stonewall	3	24
Mendez	Stonewall	3	25
Gloyd	Stonewall	4	30
McKinney	Stonewall	4	31
Gonzales	Stonewall	5	35
Bishop	Stonewall	5	35
Furr	Vestal	K	28
Furlong	Vestal	1	21
Krohn	Vestal	2	26
Gutierrez	Wright	K	28
Jones	Wright	1	30
Perez	Wright	2	31
Aparicio	Harlandale Middle (5 Sections)	6	136
O'Connor	Leal Middle (6 Sections)	6	159
TOTALS:			
62 Teachers	13 Schools		1726 Pupils

As can be seen in Table II, in the fall vocabulary development in both languages was very low, almost two years behind the norms in English and a year further behind in Spanish on both grade levels. Since similar findings had occurred every year, teachers were made cognizant of the situation and were asked to make extensive efforts in the field of vocabulary/concept development.

By the spring post-test, instead of the normal six-month gain which could be expected, prekindergarten means revealed a three year gain in English (to above the norm!) and a year and one-half gain in Spanish. This is a truly remarkable achievement by the prekindergarten teacher and pupils. Kindergarten means had risen a full year in English and fifteen months in Spanish, which is a substantial accomplishment for this grade level, also. The objective of a six-month gain between pre- and post-test was fulfilled by 90% of prekindergarten pupils in English and 86% in Spanish and by 71% of kindergarten pupils in English and 65% in Spanish.

The Bilingual Syntax Measure was administered to pre-kindergarten pupils in September and again in April by the teacher's aide who had been previously instructed in administration of this test by the evaluator. Approximately a week separated administration of the Spanish version of the test from administration of the English version. To insure uniformity of results, the evaluator scored these tests.

The BSM provides not only a measure of language dominance for syntactic structures but also a measure of structural proficiency in Spanish and English. Five levels of proficiency are specified: 1, no English (or Spanish); 2, receptive only; 3, survival (combination of gestures and disconnected words with occasional words from other language); 4, intermediate; and 5, native-like proficiency. Along with feedback on test results as to level of proficiency in the fall, the evaluator delivered to the teacher instructional suggestions designated by the test developers.

TABLE II
PEABODY PICTURE VOCABULARY TESTS*
MENTAL AGE MEAN SCORES IN MONTHS

<u>GRADE</u>	<u>PRE-OR POST-TEST</u>	<u>ENGLISH VERSION</u>	<u>SPANISH VERSION</u>
Pre K	Pre-Test	30.43	28.33
	Post-Test	67.33	47.10
K	Pre-Test	47.02	36.44
	Post-Test	58.86	51.18

PERCENTAGE OF PUPILS ACCOMPLISHING 6 MONTH GAIN*

<u>GRADE</u>	<u>ENGLISH VERSION</u>	<u>SPANISH VERSION</u>
Pre K	90%	86%
K	71%	65%

* September Pre-Test and March Post-Test.

In the spring 67% of the pupils had developed a proficiency of 5 in at least one language, and everyone had a competency of at least 4 in one language. Better than 90% of the pupils increased competency in English by at least one level, and 50% did so in Spanish. Mean raw scores had risen by 5.3 in English and 3.2 in Spanish.

TABLE III
BILINGUAL SYNTAX MEASURE
Raw Score Means

<u>English</u>		<u>Spanish</u>	
<u>Fall</u>	<u>Spring</u>	<u>Fall</u>	<u>Spring</u>
8.2	13.5	9.1	12.3

The English mean is from a total possible score of 20; the Spanish mean is from a total possible score of 18.

In September and again in March the Boehm Test of Basic Concepts was administered to all project pupils in kindergarten and first grade. Both a Spanish and an English version of the test (Form B of the Spanish and Form A of the English version in the fall, the converse in the spring) were administered by teachers. This particular test has decided advantage for use with pupils in this project because interpretation of scores allows for differences in capability and performance due to socioeconomic background of pupils. Pupils are categorized by their teachers as to three socioeconomic backgrounds: low, middle or high. Then separate national percentile tables derived for the three backgrounds can be used in interpreting pupils' raw scores. This method represents a more accurate way of judging a pupil's performance against his background.

Following administration, tests were scored by bilingual aides. Teachers sent one copy of the class record to the evaluator and retained a copy which shows individual pupil performance on each item in order that they could help the pupils to achieve mastery over these basic concepts

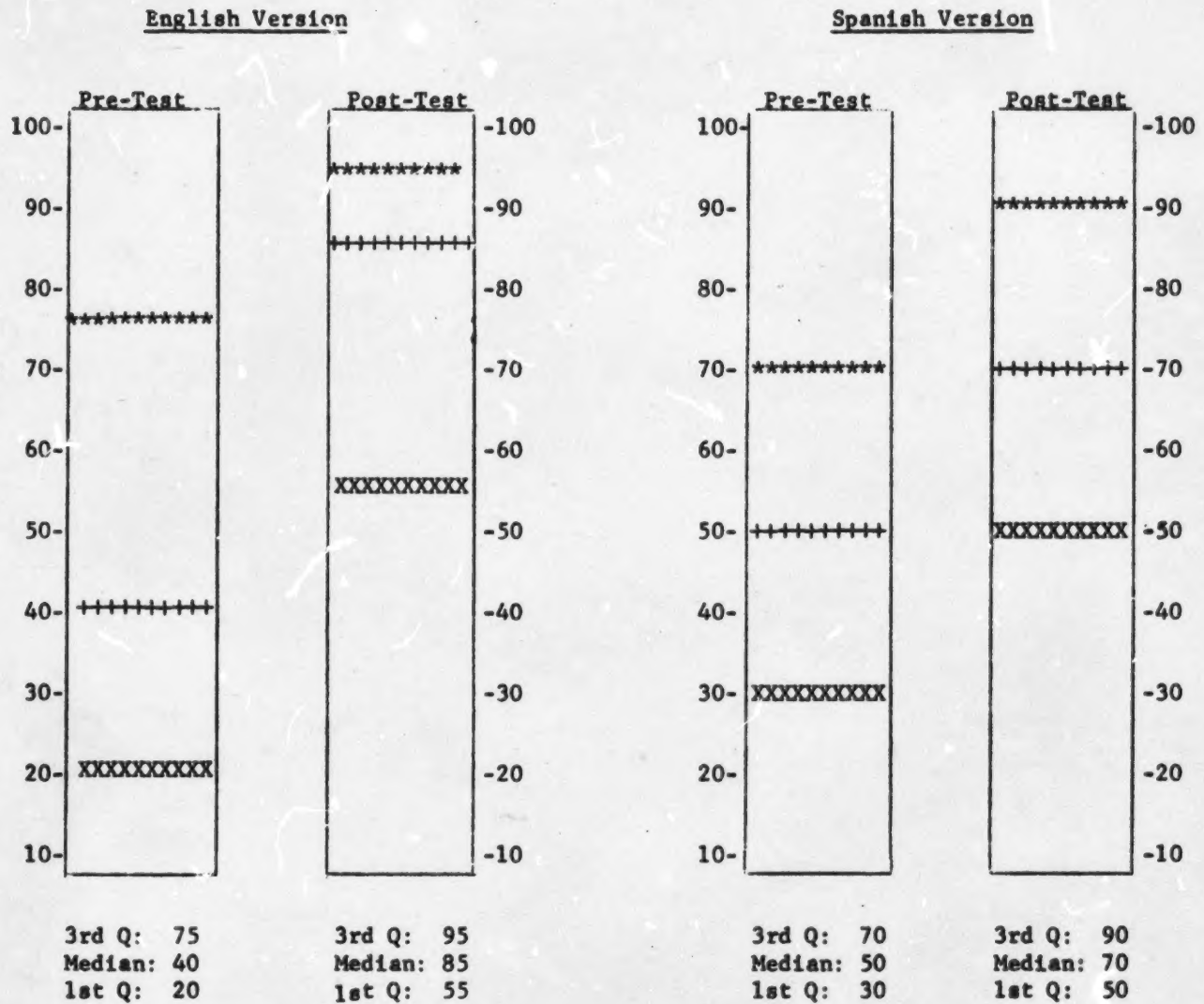
necessary for successful academic work. Bilingual office staff converted raw scores to percentile scores. Teachers were given a copy of this feedback. In addition in the fall the evaluator supplied teachers with two lists of basic concepts in English and in Spanish: (1) concepts covered by the test; (2) other concepts considered equally essential for the child to be able to undertake academic work successfully. Information on instructional procedure for developing these concepts was supplied as well. This program's objectives were that each pupil attain as high a percentile on the post-test as on the pre-test in each language, thus revealing normal development in basic concepts. Ninety percent of kindergarten pupils accomplished this in English, and 81% did so in Spanish. Comparison of interquartiles and medians derived from fall and spring scores reveals large increases in each quartile for both languages--another important achievement for kindergarten. (See Table IV.)

The objective of normal growth in basic concepts was achieved by 60% of first-grade pupils in English, and 51% in Spanish. Interquartiles and medians reveal a drop in most English quartiles between fall and spring and a slight drop in most Spanish quartiles. The lower quartile for English and the upper for Spanish show rises. (See Table V).

Materials used for Spanish oral language and reading instruction in first and second grade this year were the BOLAR materials developed by the Southwest Educational Laboratory. Also developed by Southwest Lab were tests specifically designed to evaluate mastery of the BOLAR materials. As a group of pupils (or individual pupils) completes the first level of materials, they are tested on that level in order to ascertain if they are ready to move to the next level or need additional work on the old level. There are two levels of Spanish available for first grade and two for second grade. The percentage of pupils successfully completing each level of the materials, as determined by test performance, is 75% for I and 53% for II in first grade and 60% for I in second grade.

TABLE IV

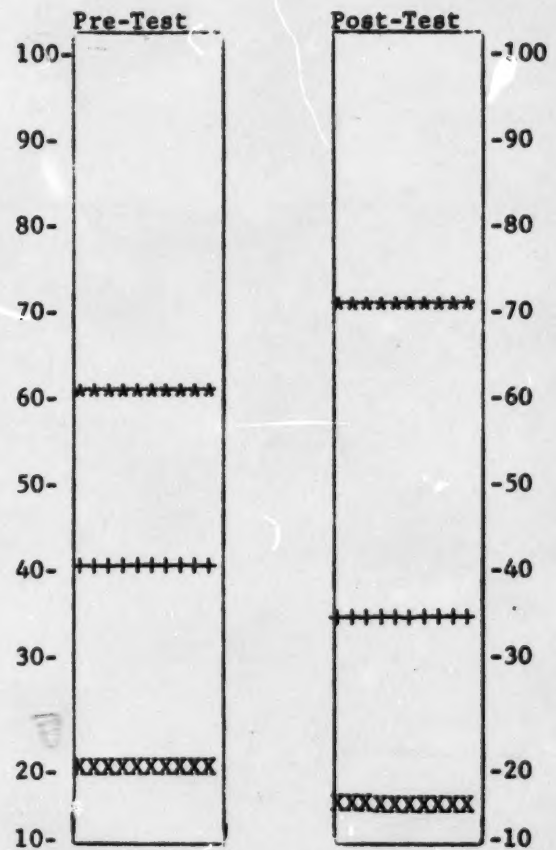
BOEHM TEST OF BASIC CONCEPTS--KINDERGARTEN*
Interquartiles and Medians**



*Figures indicate national percentile.

1st Quartile: XXXXX Median: +++++ 3rd Quartile: ***

Spanish Version



3rd Q: 70
Median: 35
1st Q: 15

3rd Quartile: *****

The Prueba de Lectura (Spanish reading test) was given in September and again in March in Grades 3-6 by project teachers. Having found in the past that the levels of the test were unsuitable for the grades specified by the developer who has as yet not normed the test, it was decided to administer Level I for third and fourth grades and Level II for fifth and sixth. Data for this test is given in raw scores. The total possible score for Level I is 80 and for Level II, 110.

The objective was an increase of 10 points in score from pre- to post-test. Better than 60% of the pupils in grades 3 and 6 fulfilled this objective, but only 36% in fourth and 45% in fifth grade accomplished this. However, means and standard deviations which were computed for each grade level for fall and spring (See Table VI) show substantial increases on each grade level. The mean increases per grade level were 13.36 for third, 7.01 for fourth, 7.60 for fifth, and 12.72 for sixth. A t-test run to ascertain if increases in test scores were statistically significant determined that these increases were significant to the .05 level of confidence on every grade level. This is an important accomplishment in the area of Spanish reading.

Social studies units, which had been developed by this project for the purpose of creating knowledge of and pride in the Mexican American bilingual-bicultural heritage, were taught at grade levels K-6. At the sixth grade level individualized learning activity packages (LAPS) rather than units were used for this purpose. Tests for evaluating understanding were administered by teachers at the conclusion of each unit or packet, and feedback was sent to the evaluator on results of these tests. As measured by the tests, learning was high on most units. (See Table VII)

TABLE VI
PRUEBA DE LECTURA--SPANISH READING TEST*

<u>Grade</u>		<u>Mean</u>	<u>Standard Deviation</u>	<u>Number Of Pupils Tested</u>
3	Pre-Test	39.45	17.25	154
	Post-Test	52.81	17.76	154
4	Pre-Test	55.84	16.69	120
	Post-Test	62.85	14.33	120
5	Pre-Test	45.03	18.93	113
	Post-Test	52.63	21.07	113
6	Pre-Test	47.04	20.22	230
	Post-Test	59.76	22.42	230

Percentage of Pupils Attaining 10 Point Increase in Raw Score

Grade 3, 64% Grade 4, 36% Grade 5, 45% Grade 6, 60%

*Figures represent raw scores.

TABLE VII

SOCIAL STUDIES UNITS AND PACKAGES

Grade
Level Scores in Percent of Test Successfully Completed*

	I.	II.	III.	IV.	V.
K	88	90	91	67	99
1	83	89	89	72	73
2	88	86	86	77	79
3	79	93	78		
4	78	78			
5	80	80	94		
6	72	63	70	67	

*Units are listed in sequential order for each grade level, Kindergarten: "La Familia", "Mi Ropita", "To The Moon", "Mi Herencia", and "Animalitos y Plantas". First grade: "La Escuela", "Yo He Crecido", "Mi Libro de Tejas", "Mi Estudio de Mejico" and "I Am An American". Second grade: "Community Helpers and Transportation", "Salud y Seguridad", "El Universo", "Mi Estudio do Tejas", and "America". Third grade: "El Espacio", "I Am An American", and "Texas, Mi Texas". Fourth grade: "Mi Herencia Mejicana Americano" and "Mi Cultura". Fifth grade: "Mi Herencia", "Mi Texas" and "Mexican Americans of Today". Packets for sixth grade were "La Navidad", "Guadalupana", "Poesía Pequena", and "Mi Herencia".

The affective domain was evaluated through the use of the Conoley-Harrison Projected Self-Concept Inventory. This instrument was developed in the summer of 1974 by two educators who had become dissatisfied with various deficiencies of existing self-concept instruments and wanted to construct an improved instrument for this area. This instrument was based on the general theory of the life stages as hypothesized by Eric Erikson. All instructions for the Inventory are given in both English and Spanish. The Inventory consists of a series of twenty pictures. The teacher reads a statement, and the pupil picks one from a set of two pictures which he thinks most accurately reflects the statement. The twenty pictures and statements deal with some aspect or other of the pupils's academic life. The highest possible score is 20; the lowest, 0.

This project and the Bilingual Education Program of San Marcos Independent School District in San Marcos were allowed free use of the Inventory in 1974-75 in return for fieldtesting it. This testing was utilized in validity and reliability studies by the originators. Analysis of item-test correlations revealed that for the separate contribution of each factor to the total score intercorrelations were relatively low, indicating the usefulness of each item to the total measurement. Measurement of internal consistency of the test(reliability), using the Kuder-Richardson split-half method, produced a correlation coefficient of .6254. Correlating test results with a rating scale filled out by the children's teachers produced statistically significant relationships with a positive correlation of .3061, significant to the .01 level of confidence, giving credence to the assumption of validity of the instrument.

A few revisions in the Inventory were made in the summer of 1975, and again this year both the San Marcos and the Harlandale Bilingual projects were allowed free use of the instrument in the interest of further research. In order to eliminate over-exposure by pupils to the measure year after year,

it was decided to restrict use of the measure to only part of the bilingual classrooms this year. The most feasible method was to employ the instrument in only certain project schools this year, other schools next year and so on.

The Harlandale schools selected this year were Columbia Heights and Flanders Elementary Schools and Harlandale Middle School, which contain 32% of project classrooms. All bilingual classrooms in those schools at all grade levels were administered the inventory by classroom teachers in September and again in March. Feedback was given to teachers in terms of raw score with a broad interpretation (drawn from last year's scores) that a total score of 10 or below was low, a score of 11-15 was average, and a score of 16 or above was high.

The objective of an increase in self-concept score from pre- to post-test was fulfilled by approximately 40% of the pupils at grade levels 1, 2, 3, and 5 and by better than 50% at grade 4. More than two-thirds of the pupils in prekindergarten, kindergarten and grade 6 accomplished this increase in self-concept. (See Table VIII.) Means and standard deviations were derived from fall and spring scores, and a t-test was run to determine if increases (or decreases) in score were statistically significant. The increases in kindergarten and sixth grade scores were found to be significant to the .05 level of confidence. (See Table IX.) In view of research which shows that self-concept for minority pupils decreases steadily throughout their school careers, these increases in self-concept for many of the pupils in this program seem significant.

The psychomotor domain was evaluated in the acquisition of the skills required to perform Mexican dances and songs and to play Mexican or Spanish musical instruments. Teachers reported to the evaluator that every pupil in the project participated in learning these songs and dances. Demonstration of these talents by performing in programs for parents and the community on the cultural exhibit day at Mission San Jose has been discussed earlier in this report. Figures are given in Table X.

TABLE VIII
PROJECTED SELF-CONCEPT INVENTORY
PERCENTAGE OF PUPILS MAKING GAIN

<u>Grade</u>	<u>Percentage</u>
Pre K	67
K	81
1	44
2	42
3	38
4	53
5	37
6	71

TABLE IX
PROJECTED SELF-CONCEPT INVENTORY
Mean Increases in Raw Scores

<u>Grade Level</u>	<u>Increase</u>
Pre K	2.14
K	4.20*
1	1.09
2	-0.53
3	-0.53
4	1.63
5	-0.29
6	2.82*

*Significant to the .05 level of confidence

TABLE X

PSYCHOMOTOR SKILLS LEARNED AND DEMONSTRATED:
MEXICAN MUSIC, SONGS AND DANCES

<u>Grade Level</u>	<u>Number of Pupils Performing On Programs</u>	<u>Percentage of Pupils Performing On Programs</u>
Pre-K	20	100%
K	154	42%
1	185	45%
2	139	42%
3	45	24%
4	15	10%
5	5	3%
6	22	7%
SUMMARY FOR ALL GRADE LEVELS	431	25%

The Comprehensive Test of Basic Skills was administered to project pupils in grades 1-5 in March, 1975, by teachers, as a post-test for that year's evaluation. Data gathered in that administration were utilized as pre-test scores for this year in order to eliminate excessive testing for bilingual pupils and to allow a full year between pre- and post-tests. The CTBS was administered again in March of 1976 as a post-test. Level A was given in kindergarten, Level B in first grade, Level C in second, Level I in third and fourth, and Level II in fifth grade. These tests were scored by the company.

The new Form S of the CTBS was used at all grade levels this year and at grade levels 1-3 last year. However, the old Form Q was used in grade 4 last year. Therefore conversion of Form Q scale scores to Form S scales scores was necessary for last year's grade 4. These conversions were performed by the computer, using a formula established by the company for sets of linear equations approximating the relationships between scale scores for S and Q batteries for a single grade/time of testing. The equation is this: $Q = m \cdot S + b$. Coefficients for subject matter areas by grade level are given in tables in the technical report. The scale score values for m and b and the Q scores were inserted into the equation, and equivalent scale scores calculated therefrom.

Utilizing scale scores allows comparisons of pre- and post-test scores, regardless of test level. Means, interquartiles and medians were derived from scale scores, and then they were converted to grade equivalents or percentiles. For comparison purposes only scores for pupils who had both pre- and post-test scores were used. This procedure is followed in all pre-and post-test comparisons.

Table XI shows these comparisons in grade equivalents by grade level. Since kindergarten and first grade had no pre-test scores for

comparison, they do not appear on this table. Second grade gained less than a year in reading and math but more than a year in language. Third and fourth grades gained approximately a year in all areas. Fifth grade gained better than a year in language and math but lost ground in reading. Reading performance is the weakest area for all grades, and language performance is the strongest area for all grades.

Table XII details 1976 CTBS results per grade level. Scores for pupils who were very LESA (limited English-speaking ability) in kindergarten and first grade were analyzed separately from those for other pupils. This was done because this year the procedure for LESA children was for reading readiness and other readiness activities to be implemented in Spanish and for reading instruction also to be implemented in Spanish. Therefore LESA children in K-1 had had little training but oral-aural in English, and it was felt that the CTBS scores for these children should be considered separately. These scores (at the bottom of Table XII) show these children to be several months behind their non-LESA counterparts in every category. A t -test comparing these two groups of scores found the difference between them to be statistically significant at the .01 level of confidence for both K and 1st.

TABLE XI

COMPREHENSIVE TEST OF BASIC SKILLS
COMPARISON OF PRE-TEST AND POST-TEST SCORES
(Figures indicate mean grade equivalent*)

<u>Grade Level</u>	<u>Pre-Test or Post-Test</u>	<u>Reading</u>	<u>Language</u>	<u>Math</u>
2nd	Pre-	1.3	k.4	1.4
	Post-	1.9	2.1	2.2
3rd	Pre-	1.9	1.6	2.3
	Post-	2.8	2.9	3.2
4th	Pre-	2.6	3.0	3.0
	Post-	3.6	4.0	4.3
5th	Pre-	4.7	4.2	4.2
	Post-	4.3	5.5	5.4

*Converted from scale score means. Pre-test date: March, 1975.
Post-test date: March, 1976. Testing times: K.6, 1.6, 2.6, 3.6,
4.6, and 5.6.

TABLE XII
 COMPREHENSIVE TEST OF BASIC SKILLS
 1976 RESULTS
 (Figures indicate mean grade equivalent.*)

<u>Grade Level</u>	<u>Reading</u>	<u>Language</u>	<u>Math</u>	<u>Battery Total</u>	<u>Reference Skills</u>	<u>Science</u>	<u>Social Studies</u>
K	k.4	k.3	k.6				
1st.	1.5	k.5	1.6	1.4			
2nd.	1.9	2.0	2.1	2.0		1.9	1.8
3rd.	2.7	2.7	3.1	2.8	2.9	2.7	2.8
4th.	3.4	3.8	4.1	3.7	3.7	3.6	3.4
5th.	3.7	3.9	4.8	4.1	3.7	3.8	3.8

SPANISH-DOMINANT PUPILS
 (Not Included in Above Means)

K	k.1	k.1	k.2				
1st.	1.1	k.2	1.3	k.8			

*Computed by converting discrete Raw Scores to Scale Scores to grade Equivalents. Testing dates: k.6, 1.6, 2.6, 3.6, 4.6, and 5.6.

Table XII reveals that non-LESA kindergarten scores are approximately two months behind the norm in grade equivalent. First grade is only two months behind, except in language. Second grade is six months behind, third is eight months behind, fourth is nine months behind, and fifth is a year and a half behind on total battery.

This steadily rising drop behind at each successive grade level is not surprising. That is the usual pattern for inner-city pupils from lower socio-economic backgrounds.

Comparison of Table XI (scores for those pupils in the project both last year and this) with Table XII (scores for all pupils in the project this year) produces interesting findings. For grade levels 2-4 means for all subject matter areas are one or two months higher for pupils who have been in the project two successive years. For grade 5 means are six months higher for these pupils. It is possible to infer, at least, that continuing bilingual education in this district resulted in higher performance on an achievement test this year.

LONGITUDINAL STUDY

Since this is the last year for this project as a service project a careful look at long range accomplishment is in order. For this purpose standardized achievement test scores with national norms seem the best instruments available. For the six-year period beginning in spring, 1971 interquartiles and medians were derived. Percentile norms were the basis for these figures. Scores for all pupils in the project were considered when deriving these interquartiles and medians.

The Metropolitan Achievement Test (1958 Edition) was the instrument used for the project for the first five years, 1969-1974. In 1974-75 the project shifted to the Comprehensive Test of Basic Skills, and figures for

spring, 1976 are drawn from the CTBS (1974 edition). Although there was a change in tests, the Anchor Study reveals that these tests (Metropolitan and CTBS) yield very closely similar scores, which are broadly comparable.

As can be seen in Table XIII, no clear-cut pattern emerges over the five-year period. There are gains and losses at times, but these follow no visible pattern. Therefore, no conclusions can be drawn.

TABLE XIII
ACHIEVEMENT TEST PROGRESS
BASED ON PERCENTILES¹
(Figures indicate quartiles.)

Grade Level	Year (Spring)	Reading Readiness			Language Usage			Math ² Readiness		
		Lower	Median	Upper	Lower	Median	Upper	Lower	Median	Upper
K	1972	31	56	70				11	35	72
	1973	26	48	77						
	1974	27	44	71 2						
	1975	—	—	—						
	1976	10	26	40	11	24	50			
1st.										
	1971	13	18	28				15	33	50
	1972	12	26	42				18	37	65
	1973	15	25	35				18	43	70
	1974 ⁴	15	45	80				15	45	80
2nd.	1975 ⁴	—	—	—				—	—	—
	1976	8	21	41	7	17	33	13	34	62
	1971	9	25	35				15	35	63
	1972	14	25	40				25	51	80
	1973	13	18	33				15	40	65
3rd.	1974 ⁴	9	17	35				15	40	70
	1975 ⁴	—	—	—				—	—	—
	1976	6	20	43	5	22	42	12	28	53
	1971	10	20	35				4	10	25
	1972	15	26	41	15	25	50	11	24	44
	1973	8	20	33	19	32	56	5	18	40
	1974 ⁴	12	23	37	12	23	45	10	28	50
	1975 ⁴	—	—	—	—	—	—	—	—	—
	1976	8	19	44	10	12	29	12	30	45

Grade Level	Year (Spring)	Reading			Language			Math ³		
		Lower	Median	Upper	Lower	Median	Upper	Lower	Median	Upper
4th.	1971	7	15	32	11	30	70	7	15	40
	1972	9	19	34	13	26	46	7	15	31
	1973	7	15	30	8	20	48	4	10	23
	1974	4	10	22	3	10	23	2	9	18
	1975	25	41	59	22	41	65	26	43	58
5th.	1976	11	23	40	23	36	56	25	35	53
	1972	4	13	20	6	20	50	5	8	23
	1973	6	15	33	8	18	40	3	8	20
	1974	6	14	26	8	20	34	6	16	36
	1975	8	18	37	11	23	46	14	26	53
	1976	7	17	31	11	24	39	14	27	49

1 Years 1971-1974, 1958 Edition of Metropolitan Achievement Test; years 1975 and 1976, 1974 Edition of Comprehensive Test of Basic Skills.

2 Kindergarten was not given the CTBS test that year; it received the School Readiness Survey instead.

3 Math scores are combined scores for computation and problem-solving/concepts/application.

4 Percentiles were not available for the first three grade levels for that year. Grade equivalents were used instead.